

Running head: Civilian Trauma Care

The Rising Cost of Civilian Trauma Care at Brooke Army Medical

Center:

Strategies and Solutions

Chris Rheney

U.S. Army - Baylor University

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>JUN 2003</b>		2. REPORT TYPE <b>Final</b>		3. DATES COVERED <b>Jul 2002 - Jul 2003</b>	
4. TITLE AND SUBTITLE <b>The Rising Cost of Civilian Trauma Care at Brooke Army Medical Center: Strategies and Solutions</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) <b>CPT Chris Rheney</b>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Brooke Army Medical Center Fort Sam Houston, TX 78234</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) <b>US Army Medical Department Center and School Bldg 2841 MCCS-HRA (US ArmyBaylor Program in HCA) 3151 Scott Road, Suite 1412 Fort Sam Houston, TX 78234-6135</b>				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) <b>3-03</b>	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT <b>This study examines the crisis involving the rising cost of providing trauma care to civilians at Brooke Army Medical Center. The paper specifically addresses the partnership and policy strategies BAMC has employed in an attempt to mitigate the increasing costs and still justify the existence of the trauma program. BAMC has pursued partnership agreements with University Health System as a means of compensation for unreimbursed trauma care provided to Bexar County residents. Four proposed agreements are quantitatively and qualitatively evaluated as viable methods of compensation. Although all four proposals indicate significant cost savings, the negative qualitative effects of entering into the agreements preclude implementation. This study then looks at the historical success of BAMCs influence on the policy development process and examines current and proposed efforts to sustain the trauma program and find funding. Finally, both partnerships and policy development are evaluated in terms of recommendations for future strategy supporting the BAMC trauma program.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>51</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

### Acknowledgements

Special recognition is due to COL Stephen Markelz, BAMC Deputy Commander for Administration, for guidance and supervision during this project. Also, special thanks to Bill Rasco of the Greater San Antonio Hospital Council for his invitation to see the behind the scenes work done at the Texas State Legislature. Finally, thank you to Dawn Rusing of the BAMC Department of Health Plan Management, Eric Epley of the Southwest Texas Regional Advisory Council, Leni Kirkman of UHS, and the BAMC RM shop for their assistance in gathering information, data and resources.

### Abstract

This study examines the crisis involving the rising cost of providing trauma care to civilians at Brooke Army Medical Center. The paper specifically addresses the partnership and policy strategies BAMC has employed in an attempt to mitigate the increasing costs and still justify the existence of the trauma program. BAMC has pursued partnership agreements with University Health System as a means of compensation for unreimbursed trauma care provided to Bexar County residents. Four proposed agreements are quantitatively and qualitatively evaluated as viable methods of compensation. Although all four proposals indicate significant cost savings, the negative qualitative effects of entering into the agreements preclude implementation.

This study then looks at the historical success of BAMC's influence on the policy development process and examines current and proposed efforts to sustain the trauma program and find funding. Finally, both partnerships and policy development are evaluated in terms of recommendations for future strategy supporting the BAMC trauma program.

## Table of Contents

### Introduction

Conditions which prompted the study

Statement of the problem

Literature Review

Purpose

### Method and Procedures

### Results

### Discussion

### Conclusions and Recommendations

### References

List of Tables

- I. Table 1. BAMC Hemodialysis Costs for FY 2002
- II. Table 2. Dialysis Unit Staffing Ratios
- III. Table 3. Cost Savings Associated with Proposed Dialysis Agreement
- IV. Table 4. Cost Avoidance/ Valued Services for Proposed Plastic Surgery Resident Agreement
- V. Table 5. Cost Savings through Proposed Laundry Cooperative Agreement
- VI. Table 6. Cost Savings under Proposed Agreement for Payment of Trauma Consortium Dues.

List of Figures

- I. Figure 1. Texas Trauma Service Area P and Bexar County
- II. Figure 2. Broad Concept for Military - Civilian Medical Reimbursement Cooperative
- III. Figure 3. Uncompensated Trauma Care Costs for Civilians at BAMC
- IV. Figure 4. Kidney Dialysis and Conservative Management Visits for FY 2002

Appendices

- A. List of Proposed Partnership Agreements
- B. Proposed Trauma Reimbursement Agreement
- C. Sample Partnership Agreement (Proposed Payment of Trauma Consortium Dues)

## Introduction

### Conditions which prompted the study

Emergency room overcrowding, the rising cost of healthcare, and the growing number of uninsured patients are all major trends in healthcare that are adversely affecting trauma centers across the U.S. According to the Centers for Disease Control and Prevention (2001), emergency department visits increased by 14% from 1992 to 1999 while the number of emergency departments decreased by 8%. While some trauma centers may be able to break even or even show a profit, the variability in case and payer mix from location to location can cause dramatic changes in financial stability as more intense services are consumed (Taheri, Butz, and Clawson, 2002). In fact, the national cost associated with trauma injuries has been estimated to exceed \$224 billion per year (Injury Fact Book, 2002). To compound the problem, the Census Bureau found that Texas has one of the highest rates of uninsured patients in the nation at 23.4% (Parker, 2002).

San Antonio, Texas is a unique environment for healthcare. The military operates two of the three Level 1 Trauma centers in the city (see Figure 1) and works with county hospital to provide a variety of residency rotations for military and University of Texas Health Science Center (UT(HSC)) residents.

Brooke Army Medical Center (BAMC) officially became certified as a Level 1 Trauma Center in 1996 and remains the Army's only hospital with this prestigious designation. The Army Medical Department's primary reasons for having a Level 1 Trauma center stem from a need to enhance military medical personnel readiness and training. Trauma management is also the best kind of training to prepare military medical personnel for what they will see during actual combat. Having a trauma center also enhances the overall variety and quality of medical training.

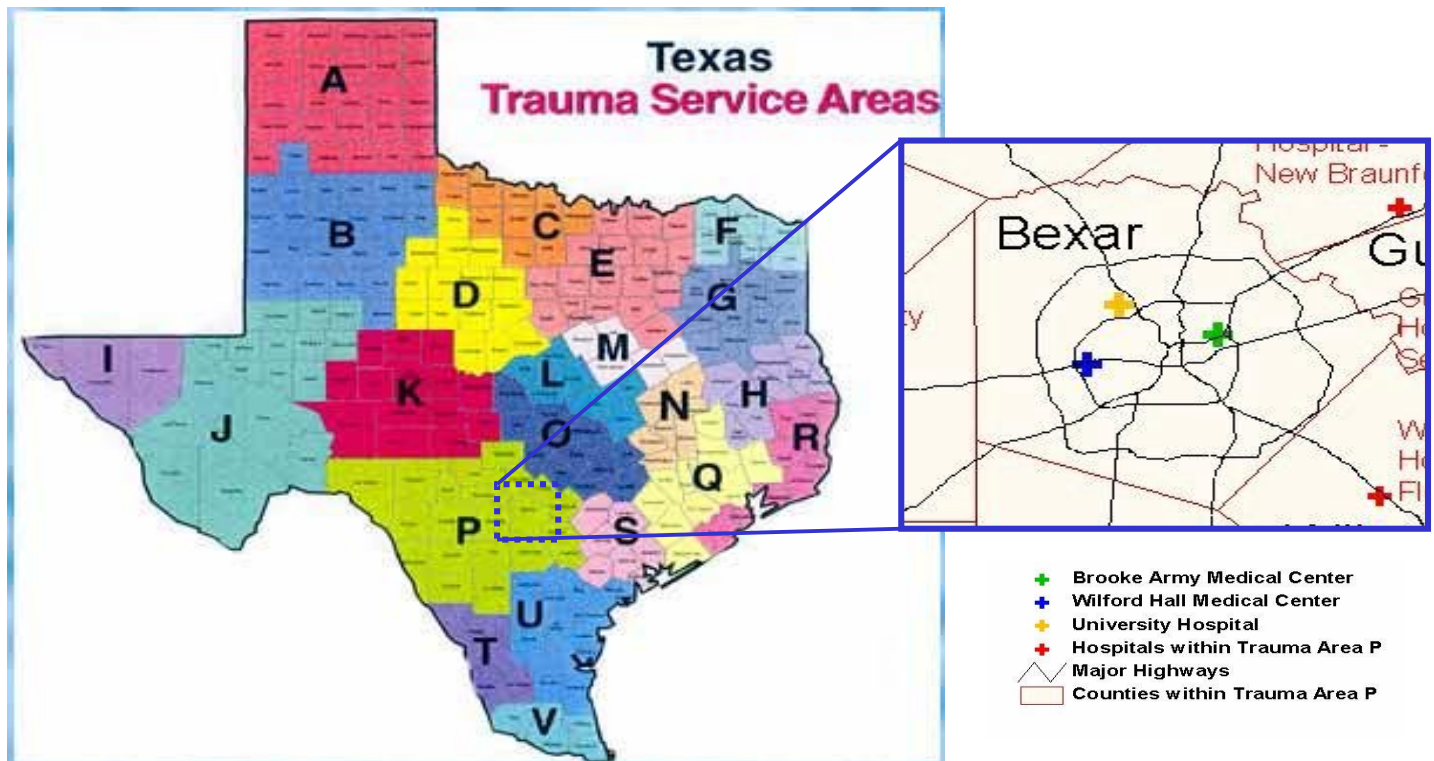


Figure 1. Texas Trauma Service Area P and Bexar County  
(Maps provided courtesy of Southwest Texas Regional Advisory Council for Trauma)

Exposure to a variety of cases with differing levels of complexity is particularly important preparation for trauma



surgeons and emergency medicine residents who are the future caregivers of injured soldiers. Although the Army Medical Department (AMEDD) has used civilian institutions like Ben Taub in Houston and Ryder Trauma Center in Miami to supplement its trauma programs, BAMC has remained the Army's premier institution for trauma GME and readiness training.

One of the major drawbacks to training military personnel at civilian institutions is the loss of medical professional services in day-to-day military healthcare. According to an unpublished study by COL Stephen Markelz, the cost of sending all Army emergency medicine residents and physicians to civilian institutions for training is estimated to be greater than the current total cost of providing uncompensated care to civilians in San Antonio. However, the cost of providing trauma care to civilians has been growing steadily. In Fiscal Year (FY) 2002, the cost of civilian uncompensated care provided by BAMC had grown to more than \$30,000,000 (DHPM 2002). Looking at trauma's increasing proportion of the hospital's budget, it is clear that something must change in order to financially sustain the Army's trauma program at BAMC. In the past, BAMC has used two primary strategies to mitigate the costs of civilian trauma care: compensation agreements with University Health System (UHS) and federal policy development.

The local governments of Bexar county and San Antonio have always acknowledged the valuable services that BAMC and the Air Force hospital, Wilford Hall Medical Center (WHMC), provide to the city of San Antonio, particularly in the area of trauma. In 1995, WHMC and BAMC entered into a "Trauma Services Cooperative Agreement" with University Health System (Bexar County Hospital District) of San Antonio. The purpose of the agreement was to assist Bexar County in the efficient delivery of trauma services to civilian patients and to provide the military with GME trauma training. In addition, UHS agreed to make an annual payment of \$3 million to the military on behalf of BAMC and WHMC as compensation for bad debt accumulated through provision of trauma services to Bexar county residents at the military hospitals (MOU, 2001). Even though there was no clear federal fiscal authorization for this agreement, the Associate Deputy General Counsel for Health Affairs, John Casciotti provided a legal opinion supporting the agreement in 1996. The agreement was renewed in 1999 and subsequently amended and extended in 2001 with the approval of the Assistant Secretary of Defense for Health Affairs, the Honorable William Winkenwerder Jr.

After the most recent extension expired in June 2002, UHS stated that it would no longer be able to provide the \$3 million annual payment to the military. To make matters worse, University Health System (UHS) and University of Texas Health

Science Center (UT(HSC)) began experiencing significant human resources challenges particularly in the area of Neurosurgery. Having lost several of their neurosurgeons, UHS and UT(HSC) approached the Army and Air Force and asked for assistance in allowing military neurosurgeons to assist with the case-load at UHS. In an effort to continue and possibly expand this kind of arrangement, University offered to try to compensate the two military hospitals through agreements that might benefit the military healthcare system to include partnerships, cooperatives, or resource sharing (see list in Appendix 1). In the meantime, BAMC and WHMC have continued to provide trauma services to Bexar County, Area P, and surrounding counties, while working to develop strategies to ensure the continued financial stability for the future of the Army trauma program in San Antonio.

#### Statement of the Problem

In what ways has Brooke Army Medical Center addressed the issue of uncompensated civilian trauma care and what are the recommended strategies for continuing their trauma program.

#### Literature Review

According to Ginter, Swayne, and Duncan (1999), environmental analysis is one of the foundations of strategic thinking. Strategic thinking in turn fosters adaptability and ultimately leads to survivability within healthcare. Whatever

approach is taken is likely to include four fundamental processes common to all environmental analysis efforts: (1) scanning to identify signals of environmental change, (2) monitoring identified issues, (3) forecasting the future direction of the issues, and (4) assessing the organizational implications of the issues (Ginter, et al.).

BAMC has been caught in a unique environmental situation in San Antonio as they essentially "subsidize" trauma care for the city. Although this kind of arrangement does not exist anywhere else in the U.S., even Congress has shown willingness to accept the concept. Congressman Ciro Rodriguez and Senator Kay Bailey-Hutchinson have both been directly involved with addressing the military medical situation in San Antonio. The Department of Defense (DOD) has also played a role in continuing BAMC's trauma role as the Assistant Secretary of Defense for Health Affairs, the Honorable William Wikenwerder, approved the extension of the local agreement under which University Health System paid the military \$3 million per year (MOU, 2001).

As BAMC and WHMC became aware of the increasing financial pressure on UHS, they began to see the need to identify alternative solutions to finding compensation for the rising costs of civilian trauma care. UHS and UT(HSC) also began to voice the need to leverage resources in order to maintain viable GME programs and to maximize capacity in their system. As a

result, both the military institutions and UHS/UT(HSC) have begun to explore the organizational implications of partnerships through resource-sharing and cooperative agreements.

Partnerships between military and civilian hospitals are an emerging strategy used to reduce redundancy, cut costs and streamline services. Military and civilian healthcare systems are looking for ways to reduce boundaries and improve interdependence and collaboration in an effort to leverage resources (Annison, 1996). In Spokane, Washington the Air Force entered into the first ever resource-sharing agreement between the US Department of Defense and a civilian hospital (Duffy 1998). Under the agreement, the Fairchild Air Force Base Hospital fully integrated its surgical staff and equipment into the Sacred Heart Medical Center (SHMC) and performed all its surgical and postoperative care while the military facility was being renovated (Duffy). The arrangement was possible because of existing capacity in the SHMC system and the ability of the military to negotiate a favorable rate for use of the facilities and services. Although the agreement was initially a temporary arrangement, it worked so well that it was extended indefinitely for complex surgeries and post-operative care (Duffy).

The Army is also testing the waters with military-civilian healthcare integration. In October 2001, the Army created the Army Trauma Training Center in conjunction with the Ryder Trauma

Center at Jackson Memorial Hospital in Miami Florida. The program was developed as a response to the possibility of terrorism and acts as a means to provide a 26 day crash-course in trauma management for Army trauma teams (Gage, 2002). The program incorporates full time Army staff into the Ryder Trauma Center and trains Army physicians, nurses, and medics in preparation for deployment. The joint venture has received positive responses from both military and civilian personnel (Gage). The civilian staff appreciates the help with the workload and military personnel get invaluable experience in penetrating and crushing injuries similar to what they will see in combat. The only challenge has been the differing emphasis on organizational relationships and supervision (Gage). The military tends to maintain much tighter supervision and is more hierarchical in nature than civilian institutions.

The Canadian military has also seen the benefits of partnerships through cooperative agreements between its medical system and civilian hospitals. According to Kent (2000), Edmonton military medical personnel have fully integrated into the Edmonton Capital Health Region's facilities without any difficulty while providing significant benefits to both organizations. The move became necessary after the Canadian military's downsizing and closure of Ottawa's National Defence Medical Center. The military still needed to maintain its

medical proficiency as well as provide services for its personnel, and the region had a need for medical professionals to staff its facilities (Kent).

In addition to seeking partnerships with civilian healthcare institutions, the military has also pursued policy development as a means to accomplish its goals. As a stepping-stone for the Army's policy strategy, Congressman Ciro Rodriguez sponsored legislation allowing the military in San Antonio to bill civilian patients for trauma care, which was approved by Congress (NDAA, 1999). Furthermore, in the FY 2002 Defense Appropriation, Senator Kay Bailey Hutchison provided for \$2.1M in funding for a feasibility study to form a collaborative Trauma Institute with a burn unit between UTHSC and BAMC/ISR.

#### Purpose

The purpose of this study is to examine the strategies BAMC has used in order to support and continue the Army's trauma program in San Antonio. The hypothesis being tested is that partnerships with civilian hospitals and pursuing federal and state policy development are all viable strategies for ensuring the future financial stability of the Army trauma program in San Antonio. To evaluate the viability of developing military-civilian healthcare partnerships as a means of sustaining the trauma program, four proposed agreements between BAMC and UHS are examined. Financial variables include fixed and variable

costs which are analyzed under current operations and are then compared with the expected and costs under the various agreements with UHS. These comparisons are then used to determine whether any of the cooperative sharing agreements with University Health System will provide a significant financial or operational benefit to Brooke Army Medical Center through cost savings/avoidance, increased revenue, or streamlined services.

The proposals are evaluated quantitatively by analyzing relevant departmental costs, efficiency, and staffing. They are also examined qualitatively by assessing operational requirements, goals and objectives. Additionally, this project will discuss qualitative factors such as military training and readiness, patient continuity of care and satisfaction, and staff morale. This study also takes a look at past and current strategies used to influence federal and state policy development and then assesses their success. Finally, this paper will recommend the future strategy approaches necessary to continue the BAMC trauma program.

#### Methods and Procedures

This study will examine the quantitative and qualitative implications of strategies involving partnership and policy development. To evaluate partnership strategies such as resource sharing, this study focuses on techniques used in financial analysis for decision-making. First, BAMC's



unreimbursed civilian trauma costs for FY 2002 are determined as well as the figures and trends over the past few years compared to other local Level 1 trauma centers. "Unreimbursed civilian trauma costs" are defined as any costs stemming from the trauma treatment of non-Tricare beneficiaries, to include inpatient admissions, rehabilitation, and follow-up that cannot be covered by third party collections or individual payment. Next, proposed agreements between BAMC & UHS/UT(HSC) are quantitatively evaluated while keeping legal, ethical, and qualitative considerations in mind. Data and information were obtained through a variety of information systems and hospital departments to include MEPRS (Financial data), CHCS (Clinical workload data), Business case analyses, BAMC contracts, Department of Health Plan Management (DHPM) research, and the Department of Logistics.

Most of the framework and information for the agreements was negotiated through a series of meetings with UHS staff. Data gathering techniques included visits to clinics and departments such as UHS's Zarzamora Street Downtown Health Clinic and BAMC's Dialysis Clinic as well as interviews and data mining through hospital information systems. Once the general framework was developed, the proposals were presented to key personnel within BAMC departments affected by the proposed agreements as well as the Medical Services Executive Committee.

As each agreement was considered, it was categorized as one of four types: 1. Cost savings 2. Competitive pricing 3. Valued services 4. Enhanced revenue. "Cost savings" is defined as an agreement, which would reduce any of BAMC's current costs or avoid future costs. "Competitive pricing" is defined as any agreement that would produce a gross savings to TRICARE by providing lower rates than currently available elsewhere in the network. These savings would be taken at face value and would not be further analyzed in an attempt to determine the individual affects on any Bid Price Adjustment (BPA) to the Tricare contracts. "Valued services" is defined as agreements which add value to BAMC operations through consulting services or information sharing, but which BAMC may not have paid an outside source for because of budget constraints or because of current prioritization of resources. "Enhanced revenue" is defined as agreements which help BAMC to leverage its share of other funding streams, such as disproportionate share dollars, tobacco settlement funds, or other private or public healthcare money. As shown in Figure 2, each agreement would be valued and used to decrement the debt owed to BAMC by the city of San Antonio and Bexar county. Some of the agreements might have no net affect on the balance or might theoretically increase the balance, but may be beneficial for other qualitative reasons

(see Appendix B for the proposed Trauma Reimbursement Agreement) .

Military Facilities Unreimbursed Trauma Balance (Account receivable)		UT(HSC)/UHS Agreements (Account payable)		Net
\$30,000,000	\$60,000	1 \$60,000	\$30,000,000	(-)
	\$107,000	2 \$107,000		(-)
		3 \$0		(0)
	\$27,000	4 \$27,000		(-)
\$10,000			\$10,000	(+)
\$29,816,000		\$184,000	\$29,816,000	(-)

Debt Reduction Types	
<span style="background-color: yellow;"> </span>	Type 1: Cost Savings (BAMC)
<span style="background-color: blue;"> </span>	Type 2: Competitive Pricing (TRICARE)
<span style="background-color: purple;"> </span>	Type 3: Valued Services
<span style="background-color: green;"> </span>	Type 4: Enhanced Revenue

Figure 2. Broad concept for Military - Civilian medical reimbursement cooperative.

In order to assign a dollar value to each agreement, UHS and BAMC agreed to first assess the cost of uncompensated trauma care provided at the end of each fiscal year. This dollar figure would then be used as a benchmark for a target of the total value of the agreements to reach 20% of BAMC's prior year trauma bad debt. For each proposed agreement, a dollar value would be assigned based on anticipated cost savings, value of services, or enhanced revenue. Four of nineteen proposed agreements are evaluated in this study, to include UHS provision of outpatient dialysis services to military beneficiaries at competitive rates, payment of the trauma consortium dues, participation in the laundry cooperative, and consolidation of military and

civilian neurosurgery and plastic surgery programs (see Appendix A for a complete list of proposed agreements and Appendix C for a sample agreement).

In addition to the partnership agreements, policy development strategies are evaluated primarily from a qualitative perspective in terms of processes and outcomes and are addressed in the discussion. The analysis of the policy development process was obtained through literature review, study of local policies and historical/continuity documents, interviews with the BAMC legal counsel, and personal interaction and meetings with the Greater San Antonio Hospital Counsel and federal and state congressional leaders and staffers.

## Results

### Uncompensated Trauma Care Trends

Since 1999 BAMC's cost of providing trauma care to civilians in San Antonio has grown at an average of 15% per year from \$10.6 million in 1999 to more than \$16 million in 2002 (see Figure 3). These costs reflect the amount billed minus collections from third party payers and direct payments for inpatient and treat and release civilian trauma patients. Furthermore, if the cost of providing burn care is included, the total cost jumps to over \$27 million in 2001 and more than \$28 million in 2002.

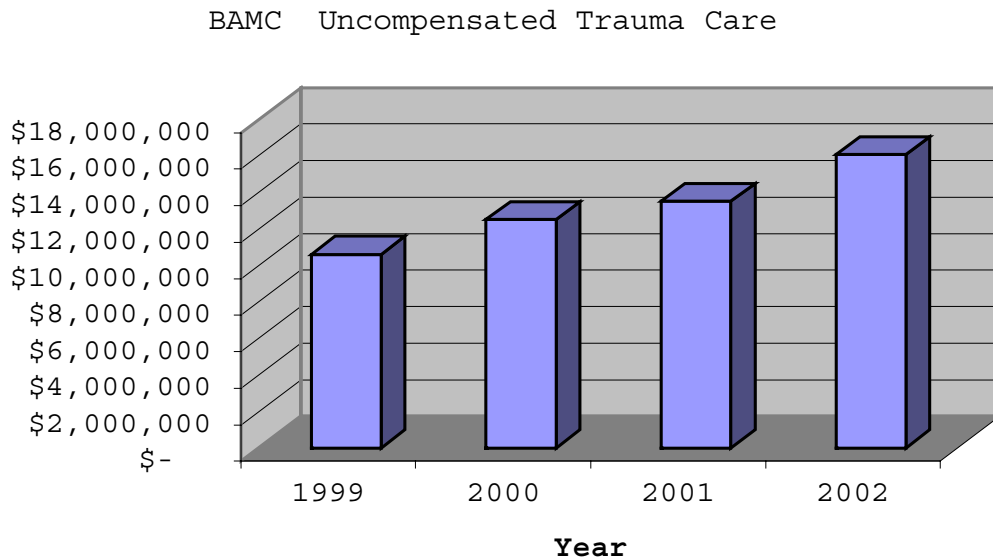


Figure 3. Uncompensated Trauma Care Costs for Civilians at BAMC

Proposed Partnerships (Cost Savings): Hemodialysis study

University Health System currently operates three dialysis centers in San Antonio and all are operating at full capacity.

UHS is also considering a Business Case Analysis (BCA) for opening a fourth dialysis center on the north side of San Antonio. BAMC operates a chronic dialysis unit consisting of 16 machines, which support 20 patients per month (each patient

makes 3 visits per week at 4-5 hours per visit). As shown in Table 1, fixed costs for the hemodialysis clinic totaled more

	Annual Cost	Average Cost per month	Average Cost per visit
<u>Fixed Cost</u>			
Maintenance	\$ 49,259.87	\$ 4,104.99	\$ 17.29
Equipment	\$ 2,406.96	\$ 200.58	\$ 0.84
Military Employee Pay	\$ 285,375.80	\$ 23,781.32	\$ 100.17
Medical Equipment	\$ 5,648.05	\$ 470.67	\$ 1.98
Education & Training	\$ 1,192.20	\$ 99.35	\$ 0.42
Communication	\$ 7,413.53	\$ 617.79	\$ 2.60
Civilian Employee Pay	\$ 544,680.82	\$ 45,390.07	\$ 191.18
Total Fixed Cost	\$ 895,977.23	\$ 74,664.77	\$ 314.49
<u>Variable Cost</u>			
Travel & Transportation	\$ 2,392.63	\$ 199.39	\$ 0.84
Printing & Reproduction	\$ 701.26	\$ 58.44	\$ 0.25
Pharmaceuticals	\$ 27,259.98	\$ 2,271.67	\$ 9.57
Supplies	\$ 44,744.40	\$ 3,728.70	\$ 15.71
Contract Labor	\$ 202,196.77	\$ 16,849.73	\$ 70.97
Medical Supplies	\$ 183,041.75	\$ 15,253.48	\$ 64.25
Total Variable Cost	\$ 460,336.79	\$ 38,361.40	\$ 161.58
Total Cost	\$ 1,356,314.02	\$ 113,026.17	\$ 476.07

Table 1. BAMC Hemodialysis costs for FY 2002.

than \$895,000 in FY 2002 and variable costs were over \$460,000.

The single greatest expense was in civilian pay, which accounted for 55% of the total cost. Civilian staff (GS employees and Contractors) made up 68% of the total clinic staff and 90% of the LPN staff. Although personnel is a prime area to reduce fixed costs, any reduction in services would have to be performed incrementally based on the required staff to patient ratios. For example, reducing the workload to support 10

patients per month would allow a 50% reduction in LPNs required, but would not reduce the need for the RN supervisor (see Table 2).

<u>Type of Dialysis Staff</u>	<u>Ratio of Staff to Patients</u>	<u>Ratio of Civ/Mil Staff</u>
RN	1:20	1:1
LPN	1:10	10:1
Dialysis Tech	1:3	1:3

Table 2. Dialysis unit staffing ratios

BAMC sees 30-40 new dialysis starts per month with many patients being sent to civilian clinics through the TRICARE network. The BAMC hemodialysis program also consists of a conservative management, acute dialysis, and peritoneal dialysis. The clinic averaged 237 chronic dialysis visits and 183 conservative management visits per month during FY 2002 (see Figure 4. Other services such as acute and peritoneal dialysis

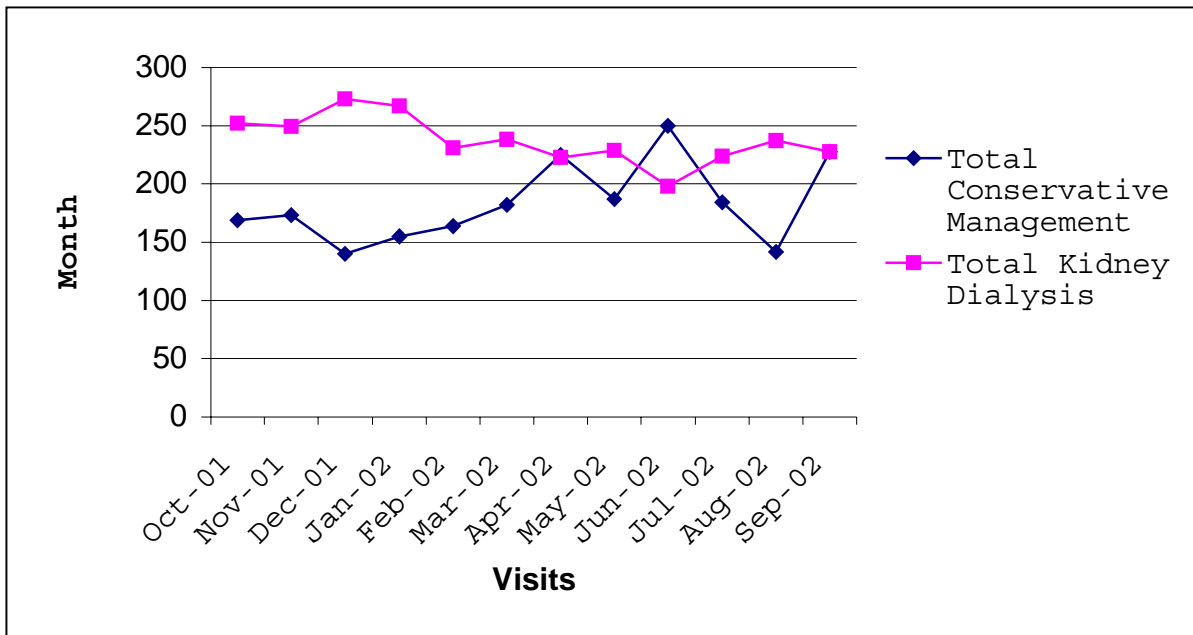


Figure 4. Kidney dialysis and conservative management visits for FY 2002.

could not be targets for reduction or elimination because of their requirements to support the full tertiary spectrum of care associated with Level 1 Trauma Certification.

After careful consideration of which costs could be reduced or eliminated through the implementation of an agreement with UHS for chronic dialysis services, it was determined that reducing available chronic dialysis appointments by 50% could save BAMC over \$500,000 in variable costs and staff pay (see Table 3). Completely eliminating chronic dialysis services and shifting the workload to UHS would save BAMC over \$962,000. The bulk of remaining costs included military staff pay and 20% of the civilian staff, which would continue conservative management and acute and peritoneal dialysis.

	Annual Cost to BAMC	Annual Departmental Cost Savings	Value assigned to Trauma Debt
Current Operations	\$ 1,356,314	-	-
Proposal 1 (Reduce Dialysis Svcs)	\$ 855,177	\$ 501,137	\$ 501,137
Proposal 2 (Eliminate Chronic Dialysis Svcs)	\$ 394,311	\$ 962,003	\$ 962,003

Table 3. Cost savings associated with proposed dialysis agreements.

#### Proposed Partnerships: Plastic surgery resident

Another proposed agreement involved a plastic surgery resident from UT(HSC) working at BAMC in order to assist with the case load, while receiving the amount and variety of case work required for residency requirements. Currently, BAMC has



agreed to pay UT(HSC) \$30,000 per year to have a plastic surgery resident work Monday - Friday and be on call 15 out of 30 days per month. Under the proposed trauma reimbursement agreement, the value of the services provided by the resident and the resident's salary would be credited toward the costs of uncompensated trauma care. A chief resident in plastic surgery's salary is about \$35,000 a year and the cost to the UHS is \$55-60,000 with benefits and malpractice insurance.

When one of the BAMC plastic surgery staff is absent on leave, temporary duty, or deployed, the hospital loses 50% of its plastic surgery capability. With the small number of personnel in the department, the two staff surgeons must also assist each other in the operating room, which further increases inefficiency. Hiring a chief resident would in essence give BAMC the equivalent of .5 Full Time Equivalent (FTE) for no cost. A resident is not considered a Full Time Employee (FTE) in this case because of the instruction and supervision required and turnover due to other rotation requirements and research. However, they would be able to see clinical cases with minimal supervision, assist in the OR freeing a staff and perform other duties.

Under the current arrangement, BAMC pays half of the resident's salary and UT(HSC) pays the other half. BAMC is not required to pay for any other fees or professional services

associated with the resident. The \$30,000 covers 2 separate residents for two six-month periods. Furthermore, in order to hire a full time plastic surgeon, it would cost over \$200,000. In the proposed agreement, the value of hiring a civilian surgeon, and the full cost of the resident would be assigned to the trauma debt (see Table 4).

	Annual Departmental Cost	Annual Cost to BAMC	Annual Departmental Cost Avoidance + Valued Services	Value assigned to Trauma Debt
Current Operations		\$ 30,000	\$ 200,000	-
Proposed Agreement for Plastic Surg. Resident		\$ -	\$ 230,000	\$ 260,000

Table 4. Cost avoidance/ valued services for proposed plastic surgery resident agreement.

#### Proposed Partnerships: Laundry Cooperative

BAMC averages about 140,000 clean pounds of laundry per month, with a variation between 124,000 lbs. and 166,000 lbs. These figures do not include any specialty items such as hospital duty whites, physician coats, cubicle curtains, window curtains, tablecloths, table skirts, napkins, and pouches. The current rate for basic laundry is \$.475 /lb. and specialty items are \$1.87 each except napkins which are \$.50 each. After negotiating with the Laundry Cooperative, BAMC's Chief of Logistics was able to get a price quote of \$.42/lb. At the new negotiated rate, BAMC would save \$7,700 per month or \$92,400 per

year (see Table 5).

	Annual Cost to BAMC	Annual Departmental Cost Savings	Value assigned to Trauma Debt
Current Operations	\$ 798,000	\$ -	\$ -
Proposed Agreement:Competitive Laundry Rates	\$ 705,600	\$ 92,400	\$ 92,400

Table 5. Cost savings through proposed laundry cooperative agreement

Proposed Partnerships: Trauma consortium dues

BAMC is also a member of the San Antonio Trauma Consortium, which includes Wilford Hall Medical Center, Brooke Army Medical Center, and University Health System. The three hospitals help fund the San Antonio Medical Command (MEDCOM), which is responsible for monitoring, coordinating, and regulating Emergency Medical Services (EMS) for the county and Trauma Area P. The Greater San Antonio Hospital Council, a nonprofit organization, is the regulatory body that controls the trauma patient regulation for the trauma centers in San Antonio, Texas. BAMC's portion of the Trauma Consortium dues were \$27,984.10 for 2001 and \$29,607.18 for 2002. In order to help offset the trauma debt, BAMC asked UHS to absorb these annual costs and make payments on behalf of the military facilities (see Table 6).

	Annual Cost to BAMC	Annual Departmental Cost Savings	Value assigned to Trauma Debt
Current Operations	\$ 29,607	\$ -	\$ -
Proposed Agreement:Trauma Consortium Dues	\$ -	\$ 29,607	\$ 29,607

Table 6. Cost savings under proposed agreement for payment of Trauma Consortium dues.

## Discussion

### Partnerships

While BAMC could realize some financial and operational benefits through proposed agreements with UHS, differences in the financial systems and regulatory and contractual requirements present significant barriers to progress in these types of strategies.

### Dialysis

The Dialysis Unit at BAMC is organized into four major programs: chronic dialysis, acute dialysis, peritoneal dialysis and conservative management. Chronic dialysis treats patients required to receive regular dialysis due to kidney failure. This is the most expensive and time-consuming program in the clinic. Acute and peritoneal dialysis focus on emergent cases and those caused by secondary effects of other illness or injuries. The conservative management program is designed as a preventive program for patients with End Stage Renal Disease or acute kidney problems in order to educate patients and help them manage their diet and lifestyle in an effort to avoid dialysis. The military medical system does not receive reimbursement from Medicare for patients receiving dialysis in military medical facilities because of the TRICARE for Life legislation. Thus the dialysis program is clearly a cost center for BAMC. On the

other hand, military beneficiaries receiving dialysis through the network are paid for by Medicare and Tricare pays for the deductible. Therefore, if UHS were to take military patients, they would be able to bill Medicare for the treatment. Through a comparison of UHS and BAMC's dialysis programs, three alternatives were developed.

1. Leave the current Dialysis unit intact.
2. Reduce Dialysis services and shift the workload to UHS.
3. Eliminate the Chronic Hemodialysis unit.

Quantitative and Qualitative Analysis of Each Alternative:

1. Leave the current Dialysis unit intact.

For FY 2002, the Dialysis unit's costs totaled \$1.36 million (see Appendix 1) to support an average of 237 visits per month for 20 kidney dialysis patients. However, beyond the obvious financial costs for the program, the dialysis unit is essential for the readiness and training of the nephrologists, residents, nurses and nephrology techs. In fact, the chief of the dialysis unit and his staff are PROFIS (professional filler system) to the 151<sup>st</sup> CSH as a part of the only deployable hemodialysis (HAT) team in the U.S. Army. Furthermore, BAMC provides annual training for reservist dialysis techs as one of only two dialysis units in U.S. Army medical facilities. The BAMC dialysis unit is often stretched thin when supporting

trauma and burn cases, thus reducing staff would put a greater strain on the entire support system. Finally, according to the clinic chief, nurses and chronic dialysis patients, many individuals prefer the military dialysis services and environment for their care.

## 2. Reduce Dialysis services and shift the workload to UHS.

If BAMC were to reduce the chronic dialysis workload to 10 patients per month, they could reduce the annual variable costs by \$228,797 and fixed costs by \$272,340 (reduced civilian LPN staff). Shifting some of the workload to UHS would help build a closer relationship and might open further opportunities for resource sharing. Additionally, UHS would have clearly identifiable, collectible revenues and would be able to take advantage of economies of scale. Reducing workload and reducing staff and equipment by a proportionally smaller amount would also alleviate some of the stress brought on by the variance in caseload due to trauma and burn patients. Conversely, the reduction in workload would reduce the number and variation of cases available for training and would impact the ability to support other nephrology and dialysis services such as conservative management and peritoneal dialysis. Furthermore, the dialysis unit may experience periods of excess capacity due to variations in trauma and burn patient caseload.

### 3. Eliminate the Chronic Hemodialysis unit.

By closing the Chronic Hemodialysis unit, BAMC could see cost savings in excess of \$962,000 and would substantially improve the working relationship with UHS. However, this represents roughly only 70% of the total cost of the unit since many fixed costs (primarily personnel costs) would remain. In particular, the military staff would have to remain to support the nephrology and trauma programs. Many of the resources "saved" by eliminating the service would also simply be "shifted" to other departments within the hospital, resulting in reduced realized cost savings.

Furthermore, UHS does not currently have the capacity to take on the additional workload, since the new dialysis clinic will not be open for at least a year. Eliminating this service may degrade readiness by further limiting realistic training opportunities for military medical personnel and may impact the capabilities of other services (namely conservative management and peritoneal dialysis) during deployments.

Reducing or eliminating hemodialysis would result in significant cost savings for BAMC; however, the qualitative benefits of continuing the service are too important to ignore and outweigh the possible financial savings. With many Army medical services, the trend is to try to recapture patients

rather than to continue to send more to the network. It is important for the Army to maintain a certain service level in order to enhance military readiness and maximize efficiency of resources. Within nephrology and the dialysis unit, many services have overlapping personnel and overhead costs. Simply eliminating hemodialysis would create greater inefficiency or put too much strain on the system in an effort to save costs. Furthermore, UHS's dialysis clinics are currently truly at capacity and are not conveniently located near to military hospitals.

#### Plastic Surgery

The structural relationship between UHS and UT(HSC) also create a barrier to agreements that involve BAMC and both UHS and UT(HSC). Since they are separate institutions that work together, they must first agree on how to work together in order to share services with BAMC free of charge or at reduced rates. For BAMC, the solution would have been to procure another staff from the Army, which is an extremely difficult process to get an additional authorization for a very small specialty. The other alternative would be to go to the private sector, where the minimum price would be at least \$200,000 per year. Therefore, BAMC decided to go ahead and pay \$30,000 to continue the plastic



surgery residency program rather than risk losing it while payment details and negotiations continued with UHS and UT(HSC).

### Laundry

BAMC recently entered into a long- term resource sharing agreement with the VA until FY 2007. However, the agreement does contain a 6 month opt out period. Attempting to switch the agreement to the UHS laundry cooperative would alienate and anger the VA since they made a substantial investment into their equipment based on their agreement. The VA bought a significant amount of laundry equipment and hired staff based on BAMC projected workloads for several years. They would be forced to fire them, and they would surely be upset about the tens of thousands in outlays they made when we agreed to give them the work. BAMC's Chief of Logistics stated his opinion that, "the VA would be reluctant to ever enter into any agreement with BAMC again.. and may opt out of any they are seeing marginal results from their perspective. Even if the Sleep Study made financial sense to both them and us... if we pull out of this huge contract .. if I was them.. I wouldn't trust us on any other for a long time."

Additionally, the Army Surgeon General has been giving special emphasis on VA-DOD resource sharing. He has been pushing Army hospitals to foster and pursue relationships exactly like the current laundry agreement. In fact, the DOD

has begun to keep a ledger, similar to the one proposed for BAMC trauma, that tallies the value of DOD-VA sharing.

Another difficulty would be the regulatory restrictions governing contracts. The University Health System is a "Charter" member of the Laundry Co-Op and would be considered a contractor by the government. Thus, BAMC would have to go through the formal process of requesting competitive bids for laundry services and might not end up with the UHS agreement anyway.

If the agreement fell through and failed to deliver the promised services, BAMC would have no recourse after alienating the VA. Currently, the only two options for this large amount of laundry are the Co-Op and the VA. A third service company is currently rebuilding after a fire. Over a year ago, BAMC actually had most of its laundry serviced by the Co-Op. Their equipment is old, and there were numerous complaints from physicians and staff that coats and linen often had grease and oil stains on them.

#### Trauma Consortium Dues

Ironically, this should have been the easiest agreement to execute, but for the BAMC leadership it became the major stumbling block to entering into the Trauma Reimbursement Agreement (see Appendix B). The agreement called for UHS to

make an easily identifiable cash payment of \$29,607 on BAMC's behalf. This agreement was to serve as the sample partnership agreement to be signed along with the Trauma Reimbursement agreement that would be forwarded for approval to the DOD Deputy Secretary of Defense for Health Affairs. Unfortunately, there was disagreement within BAMC as to the quality and quantity of these types of agreements that would emerge from exclusively continuing a partnership strategy with UHS. Some of the leadership believed that DOD would hold BAMC to the Trauma Reimbursement Agreement as a standard for achieving cost savings rather than using it as a tool. Some feared it would cause Army MEDCOM to pull some of its funding for the unreimbursed trauma debt and force BAMC to make it up internally. As a result, the entire partnership issue was elevated to the MEDCOM level and all partnership agreements were put on hold.

### Policy Development

#### Historical Policy Development: Billing Civilians for Trauma Services

In the 2002 National Defense Authorization Act, Representative Ciro Rodriguez (D, TX) added language requiring a pilot program for the military in San Antonio to charge non-beneficiaries' for actual trauma costs in order to help

collections. The effective date was 1 October 2001 and this program is to be conducted for a period of three years. While this authorizes BAMC to bill for services, it is doubtful that it will increase actual collections. Most of the civilian trauma patients seen in BAMC's Emergency Room are without insurance and are unable to pay a substantial portion of their bill. Still, this legislation is a step in the right direction as local Congressional leaders are aware of the unique challenges for the military and are equally appreciative of the benefits that the military hospitals provide to the region.

Historical Policy Development: Trauma Institute

In the FY 02 Defense Appropriation, Senator Kay Bailey Hutchison (R, TX) provided for \$2.1 million in funding for a feasibility study to form a collaborative Trauma Institute with a burn unit between UTHSC and BAMC's Institute for Surgical Research (ISR). According to the vision statement for the Trauma Institute, BAMC, WHMC, and UHS & UT(HSC) would work together to provide comprehensive trauma care services to residents of Bexar County and South Texas. The envisioned mission of the Trauma Institute includes patient care, research, and graduate medical education. Funding for the Institute is hoped to be a combined effort through federal, state, and local governments, private sources, and third party payors. The study is designed to identify larger issues involved with the

provision of trauma care in the region, while setting up a demonstration project to see if the relationship is financially and operationally feasible.

This proposal has had broad support from the leadership and staff of BAMC and UT/HSC and seems to combine the strengths of the respective programs. The major issue still remains funding. Again the federal government seems willing to move towards this kind of joint funding, since Congress was willing to provide the money to study the idea. Another key ingredient to the success of this legislation has been the support of local Congressional leaders such as Senator Hutchison. Regular concept development and progress meetings have been taking place between the San Antonio Level I Trauma Directors and a statement of work for the study has already been developed. This proposal has excellent probabilities for success if the various organizations can work together to achieve a common goal will benefit the local population as well as the trauma centers.

Proposed Policy Development: Federal Funding for Civilian Trauma Care

BAMC's Deputy Commander for Administration and Chief of Resource Management developed a proposal for a bill to enact change to federal legislation governing treatment of civilian trauma patients at BAMC (2002). The proposed legislation

specifically requires changes to the Defense Authorization and Appropriation Acts which currently only provides funds for military and beneficiary healthcare (Largoza, 2002). BAMC's authority to provide trauma (including burn care) services to non-DoD beneficiaries is not clearly established within existing legislation and has been argued by DOD and DA legal counsel all the way up to the Deputy Secretary of Defense for Health Affairs.

Trauma care currently being delivered to civilians surely exceeds the intent of authorizations contained in the Congressional Omnibus Business Reform Act (COBRA) and Emergency Medical Treatment and Active Labor Act (EMTALA), which authorize DOD Medical Treatment Facilities to provide emergency care to non-beneficiaries. These Acts were intended to provide an expeditious and immediate manner to provide emergency care to civilians who presented at the facility or who would likely be saved because of the hospital's proximity to the location that the injury occurred (i.e. traffic accidents).

Because the growing cost of trauma services provided to non-DoD beneficiaries is fiscally unsustainable within the current Defense Health Program (DHP), the proposal asks Congress to specifically authorize and appropriate the funds necessary to continue BAMC's trauma program (Largoza). The civilian case load is also necessary because the trauma requirements of the DoD

beneficiary population are insufficient to support the case mix and numbers required to maintain BAMC's status as a Level 1 Trauma Center.

Therefor, the proposed bill would provide Legislative Authorization for BAMC to: 1) provide trauma (including burn care) to non-DoD beneficiaries in order to maintain it's standing as a Level 1 Trauma Center, 2) accept funds from state/local agencies that have financial responsibility for the medical care of these non-beneficiaries. Furthermore, the legislation would provide the US Army an adequate top line funding increase to the DHP offset the cost of providing this care.

This policy proposal will be staffed through the Army Medical Command (MEDCOM) and then will go to Army Congressional Fellows and current and former Congressional Liaison's in order to push the agenda with local Congressional leaders. If enacted, the legislation would solve BAMC's funding issue in the near term, but would open up the question of Trauma care at other military healthcare facilities. The costs will continue to grow as well and some kind of guidelines will have to be implemented to prevent the bulk of trauma care from shifting to BAMC from civilian agencies.

Policy Development: State & Local Tax increases for TraumaServices

Some work has also been done to emphasize the military's healthcare issues through local advocacy groups, such as the Greater San Antonio Hospital Council. BAMC is an active member in the various meetings and working groups organized by the Hospital Council, to include the Diversion Task Force, ER's in Crisis, and meetings of the Board of Directors.

The issues facing San Antonio are raised both formally through the Texas Hospital Association (THA) and informally through the Hospital Council. The THA formally lobbies the Texas Legislature while the President and CEO of the Hospital Council stays in close personal contact with local senators and representatives and reminds them of the issues facing the city's hospitals. A great example of the effectiveness of this technique was demonstrated during the opening of the Texas State Legislature as the President of the Hospital Council and a Baylor resident visited more than a dozen senators and representatives. Next to the budget crisis, healthcare is number two on the Texas State Legislature agenda, with 28 new bills filed between the opening in January and March 21<sup>st</sup>.

The military cannot ignore this important venue to voice its concerns as well. In order to participate in any support from the state government, BAMC must have a clear voice in new



funding proposals to increase awareness of its contributions to the community and the state.

### Conclusions and Recommendations

On Sunday, 11 August 2002, the front page of the San Antonio Express News covered the current Level 1 trauma crisis in the county and the impact of increasing diversion rates for all hospitals. "Cumulative hours of diversion at San Antonio hospitals have tripled in the past three years, according to statistics gathered by a Greater San Antonio Hospital Council task force on the issue. In the early part of this year, ambulance diversions at all 20 San Antonio hospitals combined averaged 3,000 to 3,500 hours a month, or an average of five hours a day per hospital. For most of 2000, the cumulative average was 1,000 hours or less each month."

Over time, the shortage of local medical facilities in the area has increased the demand for trauma care at BAMC. Providing care to civilian patients has also helped perpetuate the systemic problem by preventing a major healthcare crisis in South Texas. As BAMC and WHMC have taken on a greater cost burden, UHS has been able to stay afloat and keep its doors open. In the meantime, no other local hospitals are eager to open their doors to trauma care or expand their ER's since the military provides a significant portion of the care. The

negative financial impact on the military has been exacerbated by declining payments from the private, local and state agencies which have financial responsibility for the medical care of non-beneficiaries.

Historically, BAMC has used both Partnership and Policy strategies to support the continuation of its Trauma Program. Lately, it seems that concepts such as the Trauma Reimbursement Agreement are not working. First, the organizational goals and structures of BAMC and UHS are just too different to reconcile without outside funding to support such a program. Secondly, many of the proposed agreements seem to make financial sense for BAMC, but the qualitative implications are often too negative to outweigh the financial benefits. If BAMC wants to enter into future agreements with UHS, it must have significant leverage for negotiation and the backing of MEDCOM and the Army Surgeon General. BAMC should demand cash payments for a proportion of the uncompensated care it provides to the county's residents while still exploring resource sharing and partnerships as avenues to allow efficient, cost effective delivery of services. MEDCOM should provide support in the negotiations by preparing a plan to move the Level 1 Trauma program to an alternate city if Bexar County and the state of Texas are unwilling to pay their fair share. Furthermore MEDCOM should also develop a Business Case Analysis for a fully funded trauma training program

designed to train military personnel at civilian institutions as an alternative to continued operations at BAMC.

Beyond direct local negotiations, BAMC has had reasonable success with policy efforts directed through local Congressional Leaders. This is another strategy that BAMC should develop and implement wholeheartedly across federal, state, and local fronts. It may be that the success for future BAMC - UHS partnerships may be tied to legislation such as the possibilities associated with the Trauma Institute. The major issue of funding seems to be the sticking point with every effort BAMC has made on its own to mitigate or solve the problems. The value of the trauma training program must be assessed and placed in the POM as a separate line item, regardless if the training continues to take place at BAMC, a different military facility, or at civilian programs. The importance of the program to the Army Medical Department and to the soldiers on the battlefield requires the recognition of comprehensive and sustainable funding. Without finding guaranteed future financial support, the future of the BAMC Trauma Program is in serious doubt. Clearly the best way to secure it's future is through tough strategic planning, negotiations and consistent future funding obtained by legislation.

- Annison, M. (1996, Nov) Trust, collaboration, and competition. *Surgical Services Management* (2), pp 14-16.
- Barton, P. (1999). Understanding the U.S. health services system. Chicago: AUPHA Press/Health Administration Press.
- Duffy, R. (1998, Feb) A Military-Civilian Resource-Sharing Agreement. *American Organization of Registered Nursing Journal*, Vol. 67(2), pp 429-432.
- Ginter, P., Swayne, L., Duncan, J. (1998) Strategic Management of Healthcare Organizations. Malden, Massachusetts: Blackwell Publishers Inc.
- Guage, J. (2002, Oct 8) Crash course in trauma. *The Miami Herald*.
- Kent, H. (2000, Apr) Civilian facilities now provide care for Edmonton's 7000 soldiers, train military MDs. *Canadian Medical Association Journal*, Vol. 162(7), pp 1042.
- Largoza, N. (2002) [Brooke Army Medical Center Legislative Proposal]. Unpublished document.
- Markelz, S. (2002) [The costs of providing trauma training at civilian institutions]. Unpublished raw data.

Memorandum of Agreement (2001, Dec) Amendment #1 To  
Memorandum of Understanding Between Bexar County Hospital  
District, Brooke Army Medical Center, and Wilford Hall Medical  
Center Trauma Services Cooperative Agreement.

National Centers for Injury Prevention and Control, Centers  
for Disease Control and Prevention, Nov. 2001, p. 7.

Parker, C. (2002) Census Bureau says uninsured growth  
outpaced insured from 2000 to 2001 , AHA News, 08916608,  
10/7/2002, Vol. 38, Issue 39

Rodriguez, C. (1999) National Defense Authorization Act  
Amendment for Trauma Billing in San Antonio.

Siegworth, G. (1998). Trauma MEDCOM Impact on Transfer  
Times, Patient Outcomes, and Cost.

Simmons, J. (March 2002). Promoting new ways to provide  
quality care and service in the emergency department, The  
Quality Letter for Healthcare Leaders. Volume 14, Number 3

Taheri, P., Butz, D., and Clawson, A. (2002). The Costs of  
Trauma Center Readiness. Report to the Florida Department of  
Health. 2002.

Trauma Consortium Bid. (2000, Apr). Commerce Business  
Daily, Issue APRIL 19,2000. PSA#2582

Weissert, C. (1996), Governing Health, The Politics of  
Health Policy, The Johns Hopkins University Press, Baltimore,  
MD, 1996.

## Appendix 1

## Proposed Trauma Reimbursement Agreements

	<b>Area of Interest</b>	<b>UHS Leader</b>	<b>BAMC Leader</b>
1	UHS establish a Pediatric urology program.	<b>Nancy Ray</b>  Ian Thompson, M.D.	<b>CPT Chris Rheney</b>
2	Expedite the transfer of unfunded Bexar County residents into Reeves Rehab. (Trauma Priority)	<b>Carlos Solar</b>  John King, M.D. Pam Kelly	<b>MAJ Peter Lehning</b>
3	UHS provide inpatient psychiatry services for non-active duty personnel. (Adult Only)	<b>Rufus Hoefer</b>  Nancy Ray Pam Kelly	<b>COL Thomas Hardaway</b>
4	UHS provide competitive laundry service through the laundry cooperative.	<b>Richard Rodriguez</b>  Gary Meyer	<b>LTC Jim Riley</b>
5	UHS provide referral lab services where capacity exists at competitive rates.	<b>John Olson, M.D.</b>  Vivian Mahony Pam Kelly	<b>LTC Dan Harms</b>
6	UHS provide ACLS refresher course training for military nurses and providers.	<b>Nancy Ray</b>  Jacque Burandt	<b>MAJ Peter Lehning</b>
7	Military hospitals contract with UHS to provide eligibility services to qualify patients for SSI, Medicaid, etc.	<b>Mary Ann Mote</b>  Peggy Demming	<b>Dennis Dohanos</b>  <b>CPT Forest Kim</b>
8	UHS provide sleep studies and epilepsy monitoring at competitive rates.	<b>Bruce Mayes, M.D.</b>  Pam Kelly	<b>CPT Forest Kim</b>
9	UHS provide outpatient dialysis services at competitive rates.	<b>Richard Rodriguez</b>  Pam Kelly	<b>CPT Chris Rheney</b>

10	Form a consortium in which UHS could consolidate its uncompensated care statistics with the two military hospitals and more successfully compete for additional disproportionate dollars which could be divided pro rata with BAMC and WHMC.	<b>Greg Rufe</b>  Jeff Turner George Hernandez	<b>LTC Shan Largoza</b>  <b>CPT Forest Kim</b>
11	UHS absorb the military's cash contribution to the SA Trauma Consortium.	<b>Greg Rufe</b>	<b>MAJ Peter Lehning</b>
12	UHS provide rehabilitation for non-TRICARE beneficiaries at competitive rates. (Other than Bexar County patients)	<b>Carlos Solar</b>  John King, M.D. Pam Kelly	<b>MAJ Peter Lehning</b>
13	Form a Trauma Institute.	<b>Greg Rufe</b>  Jeff Turner George Hernandez	<b>COL Jenice Longfield</b>
14	Cardiothoracic surgery consolidation of the three centers provide adequate volumes to support teaching program, avoid duplication, etc. Include pediatric heart surgery.	<b>Gerard Falcon</b>  John Calhoon, M.D. Greg Rufe	<b>LTC David Malave</b>
15	Share UHS's charge master with the two military hospitals.	<b>Mary Ann Mote</b>  Peggy Demming	<b>CPT Forest Kim</b>  Dennis Dohanos
16	UHS provide outpatient GI evaluations at competitive rates. Include vascular surgery.	<b>Gerard Falcon</b>  Pam Kelly	<b>CPT Chris Rheney</b>
17	UHS provide neuropsych testing at competitive rates.	<b>Rufus Hoefer</b>  Pam Kelly	<b>CPT Chris Rheney</b>
18	UHS provide assistance/consultation relating to billing, etc.	<b>Mary Ann Mote</b>  Ruth Spriggs	<b>Dennis Dohanos</b>  <b>CPT Forest Kim</b>
19	Program enhancements through consolidation (Neurosurgery & Plastic)	<b>Greg Rufe</b>  Nancy Ray UTHSCSA	<b>CPT Chris Rheney</b>

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
BROOKE ARMY MEDICAL CENTER, WILFORD HALL MEDICAL CENTER  
AND  
BEXAR COUNTY HOSPITAL DISTRICT d/b/a UNIVERSITY HEALTH SYSTEM**

SUBJECT: Military Trauma Services Reimbursement MOU

1. References.

- a. DoDI 4000.19, Interservice and Intergovernmental Support, August 1995.
- b. Amendment to Trauma Services Cooperative Agreement (Contract No. 9901082-IE), December 2001.

2. Purpose. The purpose of this MOU is to facilitate continuance of the Military-Civilian Trauma Services Cooperative Agreement and to establish a framework for University Health System (UHS) [and the University of Texas Health Science Center (UTHSC)] to defray the costs of Brooke Army Medical Center (BAMC) and Wilford Hall Medical Center (WHMC) for trauma and related services provided to Bexar County residents. For purposes of this MOU, Bexar County residency is established pursuant to Texas Health & Safety Code §61.003.

3. Problem. Under the Memorandum of Understanding between Bexar County Hospital District, BAMC, and WHMC Trauma Services Cooperative Agreement (March 1999), BAMC agreed to accept victims of trauma (Code III) from ground and air Emergency Medical Services (EMS). In turn, UHS agreed to make payments to BAMC and WHMC (Military Facilities) for trauma services rendered. In lieu of cash payments for trauma services, and since BAMC and WHMC are willing to continue providing trauma care to San Antonio, UHS has agreed to develop resource sharing agreements and cooperatives with BAMC and WHMC. These cost saving initiatives would be viewed by the military facilities as compensation used to reduce the unreimbursed costs incurred by providing trauma services to non-military beneficiaries.

4. Scope. UHS, BAMC, and WHMC agree to abide by San Antonio Medical Command (MEDCOM) agreements for trauma patient transfer protocols. Trauma Code III patients will be accepted through MEDCOM under the following rotation when via rotary wing air transport:

UHS	50%
BAMC	25%
WHMC	25%

Except under unusual circumstances, as approved in advance by the accepting physician, WHMC will not accept ground transported trauma patients or patients coming via rotary wing transport from outside Area "P". Fixed-wing transported trauma patients will not be accepted at WHMC.



## 5. Understandings.

5.1. BAMC and WHMC agree to provide trauma services as outlined in the scope.

5.2. Bexar County Hospital District doing business as the University Health System (UHS) recognize the annual value of the unreimbursed trauma services provided to Bexar County residents by the Military Facilities. Therefore, UHS agrees to develop resource sharing and cooperative agreements with BAMC and WHMC in order to offset the unreimbursed costs of trauma services provided by the Military Facilities to Bexar County residents. Proposed agreements should benefit BAMC or WHMC through cost savings, cost avoidance, competitive pricing, valued services, or enhanced revenue. The agreements may be made by UHS with both Military Facilities or with either BAMC or WHMC individually, as required by the scope of the proposed agreement.

5.3. UHS, BAMC, and WHMC understand that the completed agreements' combined annual value to the Military Facilities should be greater than or equal to 20% of the Military Facilities' prior year unreimbursed costs of providing trauma services to Bexar County residents ("target goal" herein). The target goal will be negotiated annually each October 1<sup>st</sup>, based on the prior year's unreimbursed trauma costs for the Military Facilities, related to trauma services provided to Bexar County Residents.

5.4. Calculation of Trauma services provided. The cost of the Military Facilities' unreimbursed trauma care for non-Tricare beneficiaries residing in Bexar County, will be calculated by subtracting third-party and individual payments from the Military Facilities' Billing Office charges for services rendered. UHS, WHMC, and BAMC agree to pursue debt collection up to 180 days from the date of service, in order to maximize reimbursements. The Military Facilities' charges are actual costs under Federal law and do not include any mark-up.

5.5. BAMC and WHMC agree to recognize the value of the agreements as fair compensation for unreimbursed trauma services rendered to Bexar County residents.

5.5. Individual agreements will serve as appendices under this MOU. An agreed initial balance for the Military Facilities unreimbursed trauma services will be established based upon FY 2002 (1 Oct 2001- 30 Sep 2002) data. The balance will be entered into a ledger, which will be maintained by the UHS, BAMC, and WHMC Hospital Administrators. As agreements are finalized, their value will be entered into the ledger to decrease the trauma balance. UHS, BAMC, and WHMC may audit the calculations periodically upon request, in order to evaluate the target goal or the total value of the agreements. The total value of the individual agreements will also be negotiated at the end of each fiscal year (Oct. 1) to evaluate the past year's performance in achieving the target. All parties understand that the total value of the agreements will change during the year as new agreements are added and as others become no longer applicable to the total valuation.

6. Effective date. This MOU becomes effective upon the signatures of the designated approving officials and shall remain in effect until terminated. This MOU may be terminated by mutual

consent, or by either party 60 days after giving written notice to the other party of their intention to terminate.

7. Modification and Amendment. This MOU may be modified by mutual consent of both parties. The MOU may be reviewed on an as needed basis. In the event of mobilization or other emergency the Military Facility Commanders may terminate this MOU without notice. The parties acknowledge that state and federal laws relating to electronic data security and privacy are rapidly evolving and that amendment of this MOU may be required to provide for procedures to ensure compliance with such developments. The parties specifically agree to take such action as is necessary to implement the standards and requirements of HIPAA (the Health Insurance Portability and Accountability Act, Texas Health and Safety Code Chapter 181, and implementing regulations issued pursuant thereto - collectively "HIPAA" herein) and other applicable laws relating to the security or confidentiality of Protected Health Information. Upon either party's request, the parties agree to promptly enter into negotiations with each other concerning the terms of an amendment to this MOU embodying written assurances consistent with the standards and requirements of HIPAA or other applicable laws. Failure to enter into negotiations may be considered a material breach of this MOU, invoking the right to terminate this MOU for default.

8. Approval.

<u>Brooke Army</u>	<u>Wilford Hall</u>	<u>Bexar County Hospital District</u>
<b>Medical Center:</b>	<b>Medical Center:</b>	<b>d/b/a University Health System:</b>

\_\_\_\_\_  
DANIEL F. PERUGINI  
Brigadier General, USA  
Commander

\_\_\_\_\_  
LEE P. RODGERS  
Major General, USAF  
Commander

\_\_\_\_\_  
JEFF TURNER  
President/  
Chief Executive Officer

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(DATE)

**DOD Health Affairs:**

\_\_\_\_\_  
NELSON M. FORD  
Deputy Assistant Secretary of  
Defense for Health Affairs

\_\_\_\_\_  
(DATE)

## **APPENDIX 03-A**

### **MEMORANDUM OF AGREEMENT BETWEEN BROOKE ARMY MEDICAL CENTER, WILFORD HALL MEDICAL CENTER AND BEXAR COUNTY HOSPITAL DISTRICT d/b/a UNIVERSITY HEALTH SYSTEM**

**SUBJECT:** Payment of BAMC and WHMC Annual Trauma Consortium Dues

**1. References.**

- a. DoDI 4000.19, Interservice and Intergovernmental Support, August 1995.
- b. Memorandum of Understanding between BAMC, WHMC and Bexar County Hospital District d/b/a University Health System, December 2002.

**2. Purpose.** The purpose of this MOA is to serve as a supporting document for the MOU between Brooke Army Medical Center (BAMC), Wilford Hall Medical Center (WHMC) and Bexar County Hospital District (UHS), December 2002. The annual value of this agreement will be considered compensation in lieu of cash payments to BAMC and WHMC for trauma services rendered to Bexar county residents.

**3. Agreements.**

- a. Bexar County Hospital District d/b/a University Health System agrees to pay the annual San Antonio Trauma Consortium dues for BAMC and WHMC, as well as any BAMC or WHMC Trauma Consortium dues currently payable.
- b. BAMC and WHMC agree to consider payments made to the San Antonio Trauma Consortium on their behalf as a method of reimbursement for uncompensated trauma services provided to Bexar county residents. Upon payment, the value of the annual dues paid to the Trauma Consortium will be entered into the ledger in order to reduce the balance of the uncompensated trauma care provided by BAMC and WHMC.

**4. Effective date.** This MOA becomes effective upon the signatures of the designated approving officials and shall remain in effect until terminated. This MOA may be terminated by mutual consent, or by either party 60 days after giving written notice to the other party of their intention to terminate.

**5. Modification and Amendment.** This MOA may be modified by mutual consent of both parties. The MOA may be reviewed on an as needed basis. In the event of mobilization or other emergency the Military Facility Commanders may terminate this MOA without notice. The parties acknowledge that state and federal laws relating to electronic data security and privacy are rapidly evolving and that amendment of this MOA may be required to provide for procedures to ensure compliance with such developments. The parties specifically agree to take such action as is necessary to implement the standards and requirements of HIPAA (the Health Insurance Portability and Accountability Act, Texas Health and Safety Code Chapter 181, and implementing regulations issued pursuant thereto - collectively "HIPAA" herein) and other

applicable laws relating to the security or confidentiality of Protected Health Information. Upon either party's request, the parties agree to promptly enter into negotiations with each other concerning the terms of an amendment to this MOA embodying written assurances consistent with the standards and requirements of HIPAA or other applicable laws. Failure to enter into negotiations may be considered a material breach of this MOA, invoking the right to terminate this MOA for default.

6. Approval.

<u>Brooke Army</u> <b>Medical Center:</b>	<u>Wilford Hall</u> <b>Medical Center:</b>	<u>Bexar County Hospital District</u> <b>d/b/a University Health System:</b>
<hr/> DANIEL F. PERUGINI Brigadier General, USA Commander	<hr/> LEE P. RODGERS Major General, USAF Commander	<hr/> JEFF TURNER President/ Chief Executive Officer
<hr/> (DATE)	<hr/> (DATE)	<hr/> (DATE)

By signing the agreement, signatories affirm they each have the authority to obligate his/her respective institution/organization.